

Markus Mattmüller with contributions by Fridolin Kurman and André Schluchter, *Bevölkerungsgeschichte der Schweiz. Teil I: Die frühe Neuzeit 1500–1700*, 2 vols., Balser Beiträge zur Geschichtswissenschaft, 154 and 154a. (Basel and Frankfurt am Main: Helbling & Linchterhahn, 1987.) Pages 735. sFr 88, DM 106.

In his famous essay on the *Principle of population* T. R. Malthus wrote: 'It is the nature of pasturage to produce food for a much greater number of people than it can employ. In countries strictly pastoral, therefore, many persons will be idle, or at most be very inadequately occupied. This state of things naturally disposes to emigration, and is the principal reason why the Swiss have been so much engaged in foreign service.' (T. R. Malthus, *An essay on the principle of population*, Reprint of the 7th edition of 1872, London 1973, 211). In the meantime the debate has been developed further. But the question remains: was the fact that Swiss men were often engaged in foreign service an answer to over-population or was it a normal way to earn one's living?

In *Bevölkerungsgeschichte der Schweiz* Markus Mattmüller shows that foreign service was of greater significance at certain times than at others. When the economic situation was 'normal', an insufficient number of persons left Switzerland to influence the demographic system in a relevant way. However, in times of economic distress, emigration could help to reduce the size of the surplus population by offering an alternative living. Foreign services reduced mortality at times of crisis, since the poor had the opportunity to emigrate. However, the knowledge of this opportunity did not have any evident influence on fertility. Although migration studies present Switzerland as a highly populated country with limited food resources, Mattmüller rejects the assumption that emigration was required as a permanent solution to demographic difficulties.

The 'foreign service debate' is just one example from a large number of subjects which are discussed in this long-expected book on the early modern demographic history of Switzerland. The author's main objective, however, is the discussion of the basic conditions of demographic growth in this country and of factors impeding it, such as plague, famine and emigration. By means of constant dialogue between theory and data an empirically supported model of the sixteenth- and seventeenth-century Swiss demographic system is developed.

The starting point is the community of Lausen in the canton of Basel, which is used to discuss some of the basic sources and concepts of historical demography. The results are discussed in terms of the model of demographic development, developed by R. Schofield (R. Schofield, 'The relationship between demographic structure and environment in pre-

industrial Western Europe', in W. Conze (ed.), *Sozialgeschichte der Familie in der Neuzeit Europas* (Stuttgart, 1976), 147–60. Fertility, nuptiality, migration and mortality are set in the context of economic environment, inheritance customs, production and income. Mattmüller argues, like G. Mackenroth, that every region has its characteristic demographic system (G. Mackenroth, *Bevölkerungslehre, Theorie, Soziologie und Statistik der Bevölkerung* (Berlin/Göttingen/Heidelberg, 1953). Taking Lausen as an example one can already see that real income was critical for demographic growth. In addition to Lausen, most areas of Switzerland are included in the investigation apart from those regions still unresearched by historical demographers, for instance the Bernese Oberland, some regions between Bern and Geneva and parts of the Alps. Mattmüller is able to identify very different patterns of population growth in agrarian than in pastoral regions with the former experiencing the fastest growth. Among his more general findings are also that in early modern times high nuptiality and fertility were characteristic features of the Swiss demographic system. In the sixteenth century plague maintained the balance between population size and the means of subsistence. A tendency towards population growth in excess of the 'economic ceiling' was answered either by an increase in mortality and emigration or by a reduction in fertility and nuptiality (p. 427).

With the cessation of the plague in the first half of the seventeenth century, death rates fell by about 10 per thousand. Almost immediately birth rates fell to a similar extent and total population size remained relatively stable. This immediate adjustment of the demographic system is considered by Mattmüller as a first demographic transition. The difficulty of feeding a large population in the seventeenth century demanded an immediate adaptation of the system since there was no possibility as yet of lifting the economic ceiling. Only in the eighteenth century with the improvement of agriculture and a large extension of domestic industry would this be possible. People were able, it is argued, to lower fertility because they had 'learnt' from their experience between successive plague epidemics: 'The population had acquired a natural feeling of the fact that only in times of recuperation were early marriage and uncontrolled fertility allowed. The situation after the definitive disappearance of the plague simply allowed couples to generalize a behaviour, which had been practised before in the short periods after recuperation and before a new plague wave' (p. 399). However, with this first demographic transition no stable balance between population size and means of subsistence was achieved. The system remained vulnerable, as was dramatically demonstrated in the crisis of the 1690s. The fact that the disappearance of the plague did not involve a return to the intensive population growth of the

sixteenth century is emphasized. Previously it had been assumed that modern population growth started in Switzerland with the end of the plague, a theory closely associated with W. Bickel, pioneer of Swiss population history (W. Bickel, *Bevölkerungsgeschichte und Bevölkerungspolitik der Schweiz seit dem Ausgang des Mittelalters*, Zürich, 1947).

Considering the whole of the sixteenth and seventeenth centuries, the Swiss demographic system is defined by Mattmüller as one characterized by economic shortage. He adopts a further Malthusian perspective when he concludes that mortality and emigration were more critical for the balance between population size and economic resources than the 'preventive checks'. Here the argument becomes part of the international discussion about fertility-dominated versus mortality-dominated population systems. Unfortunately, there is no mention of this debate in the book and the opportunity to view these new findings in a European context is lost.

The book ends with a successful attempt to link historical demography with the history of society. In a few pages the results of the asymmetric population development of the midlands and alpine regions are discussed in relation to their political and social structure and the development of Switzerland. Admittedly, such a view must remain speculative and subject to qualification. However, it offers a refreshing and very useful contrast to the sometimes dry and technical demographic parts of the volume.

The results presented in volume I and the scientific appendix which constitutes volume II are both impressive. The author is successful in correcting the traditionally harmonized picture of Swiss history. His method of estimating population sizes by working backwards from 1700 to 1500 relying on regional and local studies leads to substantially lower but more reliable figures than W. Bickel produced 40 years ago. While Bickel relied on overall figures of population size from census-type data, Mattmüller has improved on the work of Bickel by the use of vital statistics derived in part from family reconstitution. It remains to be seen whether he will be equally successful with this approach in connection with the proposed second part of the population history of Switzerland covering the eighteenth and nineteenth centuries. In this period more detailed demographic source material will allow the application of sophisticated quantitative methods like generalized inverse projection (a new version of Back Projection) to analyse typical specifications of Swiss demographic system.

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